Docket No. 00-0340
ICC Staff Exhibit 8.0

REBUTTAL TESTIMONY

OF

MICHAEL MCNALLY

FINANCE DEPARTMENT

FINANCIAL ANALYSIS DIVISION

ILLINOIS COMMERCE COMMISSION

ILLINOIS-AMERICAN WATER COMPANY
PROPOSED GENERAL INCREASE IN WATER RATES

DOCKET NO. 00-0340

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Witness Identification

1. Q. Please state your name and business address.

A. My name is Michael McNally. My business address is 527 East Capitol Avenue, Springfield, IL 62701.

2. Q. Are you the same Michael McNally who previously testified in this proceeding?

A. Yes, I am.

3. Q. Please state the purpose of your rebuttal testimony in this proceeding.

A. The purpose of my rebuttal testimony is to respond to the rebuttal testimony of IAWC witnesses Ronald D. Stafford and Paul R. Moul.

Response to Mr. Stafford

4. Q. Mr. Stafford asserts in his rebuttal testimony that you are willing to include the increase in test year retained earnings resulting from the approved rate increase in this proceeding.[1] Is that true?

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[1] Company Exhibit R-1, page 3.

A. Yes, I am willing to reflect the effect of Commission authorized rates on the proposed capital structure.

5. Q. How do you recommend that the Commission authorized rates be reflected in the proposed capital structure?

A. Schedule 8.02 shows the calculation of the adjustment to common equity using Staff's proposed rates as a proxy for the Commission authorized rates. Schedule 8.03 provides further explanation of the data presented in Schedule 8.02. The resulting revised capital structure would consist of 55.26% long-term debt, 0.20% preferred stock, and 44.54% common equity as shown on Schedule 8.01.

6. Q. Why did you assume that the rates authorized in this proceeding will not be in effect until April 2001?

A. The Company's assumption that it will begin to experience increased revenues generated from the rates authorized in this proceeding beginning January 1, 2001[2] is not realistic, given the 11-month timeframe of rate proceedings. Thus, based on the initial filing date in this proceeding of April 17, 2000, it is reasonable to assume that the rates authorized in this proceeding would not go into effect, and that the Company would not begin to receive any corresponding increase in revenues, until approximately April 1, 2001.

[2] Company response to Staff data request MGM 2.09.

Response to Mr. Moul

7. Q. Please evaluate Mr. Moul's rebuttal testimony.

A. Mr. Moul's rebuttal contained nothing to change my opinion of IAWC's cost of common equity. In my judgment, the investor required rate of return on common equity for IAWC ranges from 9.9% to 10.5% with a midpoint of 10.2%.

8. Q. Mr. Moul claims that adopting Staff's proposed overall cost of capital would result in a pre-tax interest coverage ratio that "would be inadequate for IAWC to attain reasonable credit quality, especially if there were any erosion in the Company's return."[3] Please comment.

A. My calculation of IAWC's pre-tax interest coverage ratio based on my cost of capital recommendation is 2.85 to 2.97, with a midpoint of 2.91. That is within the range required by S&P for an A rating, which is indicative of a company with a strong financial position. The midpoint is also above the mean and median values for A rated water utilities of 2.81x and 2.89x, respectively.[4]

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[3] Company Exhibit R-7, page 3.
[4] Standard & Poor's, *Financial Medians Water Utilities*, *http://www.ratingsdirect.com/cgi-bin/gx.cgi/AppLogic+GetArticle?article_id=161989*, July 7, 2000.

Sample Selection

9. Q. In his rebuttal testimony Mr. Moul suggests that Connecticut Water, Middlesex Water, and Pennichuck should be removed from both of your proxy groups[5]. Do you agree?

A. No. My recommendation is based upon a representative sample, rather than any individual company's estimate. As stated on page 25 of my direct testimony, "estimates for a sample as a whole are subject to less measurement error than individual company estimates." It is improper to eliminate companies on the basis of their individual DCF results without regard to the effects of such action on the overall sample. That would defeat the purpose of using a sample. While the DCF cost of equity estimates for Connecticut Water Service, Middlesex Water and Pennichuck are below the current yield on A-rated public utility bonds, individual DCF estimates for other sample companies are well-above the yield on A-rated public utility bonds. The average cost of equity for the sample used is reasonably above the yield on A-rated utility bonds. An analysis of the samples used indicates that both are similar in risk, overall, to IAWC. Therefore, the results of my analysis are appropriate.

10. Q. Mr. Moul claims that including Connecticut Water, Middlesex Water, and Pennichuck in both of your samples over-weights their results and biases your analysis[6]. Do you agree?

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[5] Company Exhibit R-7, page 7.

A. No. Those companies belong in both of my samples because they meet the criteria of both samples. Thus, if they receive more weight than other companies, it is only because those three companies are most like IAWC in terms of both risk and industry. I used two different samples to represent IAWC from two distinct standpoints. I used a water sample to directly reflect the risks of the water utility industry. I used a comparable sample of public utilities to directly reflect the risk of IAWC. As three of the companies closest in risk to IAWC, it would certainly be inappropriate to eliminate Connecticut Water, Middlesex Water, or Pennichuck from my comparable sample. While my water sample is not directly based on the risk of IAWC, it does reflect the industry in which IAWC is operating. Eliminating three of seven companies from the water sample would greatly reduce the sample's usefulness as an indicator of industry-wide risks. Moreover, eliminating those three companies, which have the lowest DCF estimates, from the sample would be inappropriate, as it would significantly distort the cost of equity estimate of the sample.

Measurement Period

11. Q. Mr. Moul claims that the use of price data as of a single date "is subject to the vagaries of the market," "is dependent upon the time when the analyst

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[6] Ibid., at 8.

decides to prepare his/her study," and "introduces gamesmanship into the rate of return."[7] Please comment.

A. The use of current market data versus historical data has already been addressed on pages 11, 13, and 27-30 of my direct testimony. The market value of common stock equals the cumulative value of the expected stream of futures dividends after each is discounted by the investor required rate of return. Every day new information becomes available and investors rethink their projections of future cash flows and the risk level of the company. Thus, only a current stock price will reflect all information that is available and relevant to the market. As to the "vagaries" of the market, I employed samples to minimize the effects of any such vagaries, as estimates for a sample as a whole are subject to less measurement error than individual company estimates. Mr. Moul claims that my use of spot market data is dependent upon the time when I decided to prepare my study and implies that I resorted to gamesmanship. Since Mr. Moul provided no explanation of how gamesmanship was introduced, I am left to interpret Mr. Moul's statement as implying that the date of my analysis was chosen, by design, to produce the results I desired. That was not the case. The date of my analysis, August 9, 2000, was chosen simply to provide the most recently available information possible while still allowing me time enough complete my analysis and testimony by the August 24th deadline. I did not compare my results to the results of any other date before deciding to use the August 9th data. The date was chosen without knowledge of, or regard to, the final

[7] Ibid., at 10.

outcome. Finally, the only alternative to using spot market data is to use historical data, which is fraught with problems, as discussed at length on pages 27 through 30 of my direct testimony.

DCF Analysis

12. Q. Mr. Moul criticizes your DCF analysis because you did not include Value-Line earnings per share ("EPS") forecasts.[8] Please comment.

A. Mr. Moul implies that any analysis that does not consider the Value Line EPS forecasts is doubtful. Mr. Moul states that "*to the extent that Value Line's earnings forecasts influence investor expectations*, it is essential that those forecasts be incorporated in the DCF model." Mr. Moul does not, however, provide evidence of the extent to which Value Line's earnings forecasts influence investor expectations and fails to demonstrate that the Value Line EPS forecasts are universally employed. Furthermore, I am not aware of any evidence that the investment community regards as doubtful any analysis that does not consider the Value Line EPS forecasts. In fact, there are several reasons for not including the Value Line EPS forecasts. First, the methodology Value Line uses to normalize its EPS forecasts is flawed in that the models employed are simplistic and mechanistic. Second, Value Line's growth forecasts are for a shorter time horizon (3-5 years) than the five-year IBES and Zacks forecasts. Finally, the testimonials of both Warren Buffet and Fischer Black, to which Mr. Moul points in support of the use of Value

[8] Ibid., at 13.

Line EPS forecasts, seem to be referring to the Value Line "system" in general rather than the Value Line EPS forecasts specifically. Value Line provides a great deal of information, including EPS forecasts. However, to say that someone holds the overall Value Line product in high regard, does not mean that he is recommending every individual aspect of the Value Line service. I do not dispute the value of the Value Line product, only the absolute need to include the Value Line EPS forecasts in my analysis.

CAPM Analysis

13. Q. Mr. Moul criticizes your CAPM analysis because the betas you used do not "conform with the data used by investors," recommending, instead, the use of Value Line betas.[9] Please comment.

A. First, validity of Staff's beta estimation methodology is not a function of whether investors consult Staff on beta estimates. Rather, the validity of the methodology is a function of whether it is generally accepted. The methodology used by Staff in calculating beta is the same methodology used by Merrill Lynch and is widely accepted. Second, Value Line does not publish betas for all of the companies included in my samples, whereas Staff's methodology directly measures the sample beta, incorporating all companies in the samples. Third, Value Line does not provide regression statistics that are necessary for evaluating the validity of its beta estimates.

[9] Ibid., at 15-16.

14. Q. Mr. Moul criticizes your use of Treasury bonds to represent the risk-free rate.[10] Please comment.

A. First, Mr. Moul's criticism of my use of T-bond yields seems disingenuous since he uses T-bond yields in his own analysis. Second, Mr. Moul was misinformed regarding Staff's "traditional" determination of the risk-free rate. Staff "traditionally" has used a methodology for determining the risk-free rate, not a particular instrument as Mr. Moul indicates. This methodology was outlined on pages 17-21 of my direct testimony.

15. Q Mr. Moul claimed that you seemed tentative in selecting Treasury bonds to represent the risk-free rate.[11] Please comment.

A. Yes, I was tentative in my selection of either Treasury bills or Treasury bonds, as the yields on both seemed high relative to WEFA and *Survey of Professional Forecasters* forecasts. Thus, after careful consideration, I reluctantly chose the Treasury bond yield without an adjustment to remove the interest rate risk premium imbedded in its yield.

Historical Data

16. Q. In defense of his use of historical data Mr. Moul, points out that "most notable research has used historical data."[12] Please comment.

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[10] Ibid.
[11] Ibid.

A. Of course, researchers study historical data. They certainly cannot study the future. The fact that academic researchers use historical data for "investigating and testing theories" is irrelevant to estimating a company's cost of capital. The investor required rate of return is based on investors' expectations of the future, not the experiences of the past.

17. Q. Mr. Moul points out that you used historical data extensively in the process of selecting your comparable utility companies.[13] Please comment.

A. I did use historical data to determine which companies have been, historically, the most similar in risk to IAWC. The comparable sample was developed using current accounting data, which is historical by nature, since expectational, market-based indicators of risk are not directly measurable. However, historical data was not directly used in determining the cost of equity, as it was in Mr. Moul's analysis. The development of my comparable sample and his computation of his cost of equity recommendation are based on entirely different principles. The DCF model is a time-sensitive, forward-looking and market-based estimator of the investor-required rate of return on the security in question. To validly calculate the current investor-required rate of return, current stock prices are necessary. The use of accounting data in developing my comparable sample assumes certain relative historical relationships among companies remain reasonably unchanged. To compute my cost of equity recommendation I applied current data to those

[12] Ibid., at 20.
[13] Ibid., at 21.

relationships. That is, the use of accounting data in developing my comparable sample is based on relative values while the use of market data in computing my cost of equity recommendation is based on absolute values. It is reasonable to assume that relative relationships among utilities remain similar. In contrast, absolute market expectations data changes quickly and often, making the latest spot prices the best current estimates of market expectations.

17. Q. Mr. Moul claims that using historical data avoids the "vagaries" of the market and avoids the gamesmanship that can occur with the use of spot data.[14] Do you agree?

A. No. The "vagaries" of the market would not apply to growth rate projections or dividends. In fact, such "vagaries" would at best apply only to stock price information. As discussed on pages 27-30 of my direct testimony, using historical data in pricing stocks presents many problems. First, as discussed previously, every day new information becomes available and investors rethink their projections of future cash flows and the risk level of the company. Any information reflected in historical prices, as well as new information that is not, is reflected in current prices. Thus, only a current stock price will reflect all information that is available and relevant to the market. Using historical data gives undue weight to information that may be obsolete. Second, the magnitude of historical risk premiums depends upon the measurement period used. Since there is no proven method for determining

[14] Ibid.

the appropriate measurement period to use, any measurement period chosen would be arbitrary. That is, use of historical data in determining required rates of return renders such estimates susceptible to manipulation, the same "gamesmanship", I believe, which Mr. Moul claims spot prices introduce and historical prices avoid.

18. Q. Mr. Moul claims that using historical data captures expectations of future market returns.[15] Please comment.

A. As discussed above, historical data only captures information about the past, which may not continue into the future. The implication is that there exists some mean to which prices will revert. That assumption is false, as discussed on page 27 of my direct testimony.

19. Q. Please respond to Mr. Moul's comments regarding the calculation of the risk premium for the S&P Public Utilities.[16]

A. Mr. Moul argues that any discrepancy between my results and his is due to my use of a less detailed, annual approach as compared to his use of a more detailed, supposedly theoretically correct monthly approach, implying that his approach was superior to mine. I am not aware of any empirical support, much less theory, that shows that using monthly data is superior to using annual data. Even so, the fact that using monthly data produces

[15] Ibid.
[16] Ibid., at 22.

significantly different results from using annual data simply reveals the "vagaries" of using historical data.

Leverage Adjustment

20. Q. Please respond to Mr. Moul's comments regarding his use of a leverage adjustment in his DCF and CAPM analyses.[17]

A. In his rebuttal testimony Mr. Moul states that his "leverage adjustment is not intended, nor was it designed to address the reasons that stock prices are different from book values." That was exactly my point. The leverage adjustment is used to justify higher rates based on the fact that market values have deviated from book values, yet it ignores the reasons for those differences. As explained in my direct testimony, the Commission should not reward the Company for alleged differences between its market and book values.

21. Q. In his rebuttal testimony Mr. Moul states that neither you nor Mr. Gorman dispute that using market values produces equity ratios of 63.62% and 66.24% for Mr. Moul's Water Group and Public Utility Group, respectively.[18] Please comment.

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[17] Ibid., at 22-23.
[18] Ibid.

A. If the market value of IAWC's common equity is above that of its book value, it obviously follows that the resulting equity ratio would be higher when based on market values than when based on book values. Naturally, I did not dispute that simple mathematical principle. However, as I stated on page 38 of my direct testimony, using market values to calculate the equity ratio does nothing to change the risk level of a company.

Size Adjustment

22. Q. Please respond to Mr. Moul's defense of his size adjustment.[19]

A. Mr. Moul's argues that because Ibbotson's size-based premium study included utilities, the study applies to utilities. Unfortunately, his logic is not sound. Just because a study includes some utility companies does not mean that the average results apply to utilities specifically. As explained on page 40 of my direct testimony, public utilities differ significantly from industrial companies. Furthermore, the only evidence of which I am aware that pertains specifically to utilities, indicates that no size-based premium is warranted for utilities.[20] Mr. Moul has failed to repudiate those findings.

Mr. Moul also claims that "the adjustment for the betas relates to regression bias and has nothing to do with the issue of size." I presume that this statement is meant to counter my argument that a size-adjustment should not

[19] Ibid., at 24.
[20] Wong, "Utility Stocks and the Size Effect: an Empirical Analysis," *Journal of the Midwest Finance Association*, 1993, pp. 95-101.

be used in conjunction with adjusted betas. But again, Mr. Moul's logic is flawed. Ibbotson calculated size premiums based on a finite time period during which smaller companies realized returns in excess of that predicted by the CAPM using unadjusted ("raw") betas. Since use of adjusted betas in the CAPM would result in higher predicted returns for utilities than if raw betas were used, then a size premium for utilities, if it existed, would be smaller if adjusted betas were substituted for raw betas. This is an incontrovertible result of mathematics. Thus, since Ibbotson bases its size premium on raw beta, it is inappropriate to add that size premium to an *adjusted beta*.

Finally, even if a size-based risk premium were warranted, which it is not, it should be based on the size of American Water Works ("AWW"). As explained on page 39 of my direct testimony, to the extent that a correlation between firm size and return exists, that relationship is likely the result of some other factor or factors that are related to both size and return, such as liquidity or information costs. Conceivably, a higher return on publicly traded companies similar in size to IAWC may be required in order to offset these higher trading costs. However, IAWC is not publicly traded; therefore, IAWC incurs no trading costs. As the market-traded entity that raises common equity for IAWC, any trading costs, if they exist to a measurable degree, would be incurred by IAWC's parent, AWW.

Correction

23. Q. Are there any corrections and/or editions you would like to make to your Direct Testimony?

A. Yes. In my direct testimony I inadvertently omitted one of the criteria I used in selecting my water sample. Companies that are targets of acquisition were also excluded from my water sample. E'Town and United Water Resources, which have recently been acquired by Thames Water and Suez Lyonnaise des Eaux, respectively, were excluded from my water sample for that reason.

23. Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

Docket No. 00-0340
ICC Staff Exhibit 8.0
Schedule 8.1

Illinois-American Water Company

Weighted Average Cost of Capital
Average for 2001 Test Year

Company Proposal

	Amount	Percent of Total Capital	Cost	Weighted Cost
Long-term Debt	$170,643,270	54.60%	6.97%	3.81%
Preferred Stock	$627,454	0.20%	6.25%	0.01%
JDITC	$2,263,661	0.72%	8.88%	0.06%
State Investment Tax Credit	$967,582	0.31%	8.88%	0.03%
Common Equity	$138,036,412	44.17%	11.25%	4.97%
Total Capital	$312,538,379	100.00%		
Weighted Average Cost of Capital				**8.88%**

Staff Proposal

	Amount	Percent of Total Capital	Cost	Weighted Cost
Long-term Debt	$170,681,887	55.26%	6.96%	3.85%
Preferred Stock	$627,454	0.20%	6.25%	0.01%
Common Equity	$137,573,848	44.54%	9.9-10.5%	4.41-4.68%
Total Capital	$308,883,189	100.00%		
Weighted Average Cost of Capital				**8.27-8.54%**

Sources: *Staff Schedule 3.1*
Staff Schedule 8.2

Docket No. 00-0340
ICC Staff Exhibit 8.0
Schedule 8.2

Illinois-American Water Company

Month	Common Equity Month-End Balance: Present Rates (A)	Change in Earnings: Company Proposed Rates (B)	Change in Earnings: Staff Proposed Rates (C)	Payout Ratio (D)	Change in Dividends Paid: Staff Proposed Rates (E)	Change in Common Equity: Staff Proposed Rates (F)	Common Equity Month-End Balance: Staff Proposed Rates (G)	Average (H)
December 2000	135,217,828	-	-		-	-	135,217,828	-
January 2001	135,894,677	-	-		-	-	135,894,677	135,556,253
February	136,422,836	-	-		-	-	136,422,836	136,158,757
March	134,622,427	-	-		-	-	134,622,427	135,522,632
April	135,363,153	461,296	332,594	75%	-	332,594	135,695,747	135,159,087
May	136,352,467	461,296	332,594	75%	-	332,594	137,017,655	136,356,701
June	135,753,154	461,296	332,594	75%	-	332,594	136,750,936	136,884,296
July	137,199,310	461,296	332,594	75%	249,446	83,149	138,280,241	137,515,588
August	138,534,795	461,296	332,594	75%	249,446	83,149	139,698,874	138,989,557
September	137,547,147	461,296	332,594	75%	249,446	83,149	138,794,375	139,246,624
October	138,607,090	461,296	332,594	75%	249,446	83,149	139,937,466	139,365,920
November	139,387,053	461,296	332,594	75%	249,446	83,149	140,800,578	140,369,022
December 2001	137,226,220	461,296	332,594	75%	249,446	83,149	138,722,893	139,761,735
Average:								137,573,848

Notes:

Column (C) = Column (B) X (Staff Proposed ROE Deficiency / Company Proposed ROE Deficiency)

ROE Deficiency = Weighted Rate of Return on Common Equity X Rate Base - Operating Income under Present Rates - (Weighted Costs of Debt and Preferred Stock X Rate Base)

Sources: Company responses to Staff data requests MGM 2.04, 2.09, and 5.01.
ICC Staff Exhibit 6, Schedules 6.1 and 6.3 for each division.
ICC Staff Exhibit 3, Schedule 3.1.

Docket No. 00-0340
ICC Staff Exhibit 8.0
Schedule 8.3

ILLINOIS-AMERICAN WATER COMPANY

Explanatory Notes to Common Equity Schedule

Column A - Common Equity Month-End Balance: Present Rates

The month-end balances of common equity shown in Column A were provided by the Company in response to Staff data request MGM 5.01 and represent the Companies projections of common equity, assuming present rates.

Column B - Change in Earnings: Company Proposed Rates

Because the suspension period in this proceeding does not end until mid-March of 2001, Staff has assumed that the new rates authorized by the Commission will not be instituted until April 1, 2001. Therefore there will be no change in earnings for the months of January through March. Each monthly balance from April through December 2001 is calculated by dividing the Company's proposed $5,535,458 adjustment to utility operating income under present rates[1] by twelve.

Column C - Change in Earnings: Staff Proposed Rates

The monthly balances in Column C are determined by multiplying each month's corresponding monthly balance in Column B by the ratio of Staff's proposed ROE deficiency to the Company's proposed ROE deficiency (i.e., $3,991,290 / $5,535,458, or 72.1%). The Staff ROE deficiency of $3,991,290 is computed as follows:

Weighted Cost of Common Equity * Rate Base - (Company estimate of Operating Income Under Present Rates - (Company Weighted Costs of Long-Term Debt & Preferred Stock * Company estimated Rate Base))

where:		ROE Deficiency	
		Staff	Company
Weighted Cost of Equity	=	4.54%	5.02%
Proposed Rate Base	=	$296,296,866	$298,727,804
Operating Income Under Present Rates	=	$20,991,481 (Company Estimate)	$20,991,481
Weighted Cost of Debt and Preferred Stock	=	3.86% (Company Estimate)	3.86%

[1] Company Exhibit 12.0, Schedule C-1, page 1, line 7.

Column D - Payout Ratio

The payout ratio is equal to one minus the Company's annual average retention ratio of 25%.[2]

Column E - Change in Dividends Paid: Staff Proposed Rates

The Company indicated that current quarter dividends are based on previous quarter earnings.[3] Thus, the change in dividends paid each month equals the dividend payout ratio (Column D) multiplied by the change in earnings three months (i.e., one quarter) prior (Column C).

Column F - Change in Common Equity: Staff Proposed Rates

The change in common equity each month is equal to the change in earnings for the month (Column C) minus the change in dividends paid that month (Column E).

Column G - Common Equity Month-End Balance: Staff Proposed Rates

For each month, the common equity month-end balance is equal to the common equity month-end balance from the preceding month plus 1) the change in equity at current rates (i.e., the difference between the common equity balance in Column A for that month and the preceding month) plus 2) the change in common equity for the month at Staff proposed rates (Column F).

Column H - Average Common Equity Balance

The average common equity balance for each month is the average of the beginning and ending balances of common equity for that month. The average monthly balances are then averaged to obtain an average common equity balance for the year.

[2] Company responses to Staff data requests MGM 2.04 and 2.09.
[3] Company response to Staff data request MGM 2.09.